

Heat Exchangers

Finned Tube Heating Coils type BW

Description

The compact design permits the installation of powerful BW Finned Tube Heating Coils into the lowest part of the hot water tank. This is associated with the optimum utilization of the total tank volume for the heat absorption. In addition, this results in the circulation of the tank water which is favourable for heat exchange. Furthermore, BW Finned Tube Heating Coils are distinguished by a low pressure drop the inside tube.



For tank heating in general a circulation pump is necessary which circulates the heating medium between the heat generator and the BW Finned Tube Heating Coil. The temperature can be controlled by switching the circulation pump on and off.

Application

BW Finned Tube Heating Coils are used for heating hot water tanks.

Medium	Water
Maximum flow rate (dependent on type)	2,760 l/h
Standard capacities (continuous rating)	17 - 114 kW*
Maximum operating pressure	10 bar
Maximum operating temperature	150 °C

*Basis:

Heating water temperature: 80 °C
 Sanitary water inlet temperature: 10 °C
 Sanitary water outlet temperature: 45 °C

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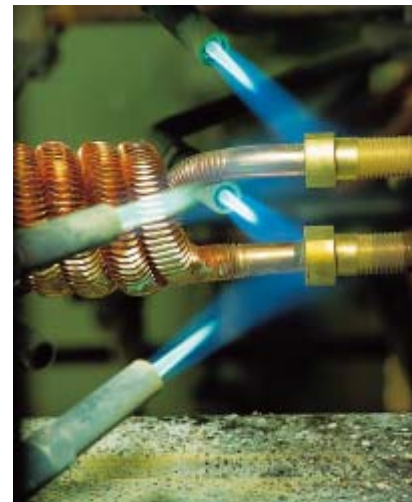
Electrically isolated connection fittings

Enamelled or plastic-coated steel hot water tanks are in general equipped with magnesium or other sacrificial anodes in order to protect the base metal against corrosion at those spots which are not perfectly coated. This cathodic corrosion protection is endangered by the installation of copper heating coils which are not electrically isolated. In this case the anodes are consumed within a relatively short time. The enamelling flaws together with the chemically nobler heating coil material form a galvanic corrosion couple which can result in a rapid solution of the base metal at the enamelling flaw.



The electrically isolated connection fittings developed by Schmöle avoid the forming of this galvanic corrosion couple and, therefore, make an essential contribution to the corrosion protection of coated steel hot water tanks..

The isolated connection fittings made by Schmöle separate the heating coils both from the tank wall and from the metallic connection lines and therefore correspond to the DVGW Worksheet W 511.



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Materials

Finned tube	Cu-DHP
Connection fitting	CuZn39Pb3

Approvals

Schmöle is in possession of a certified Quality Management System to DIN EN ISO 9001 and of an approval to Pressure Equipment Directive (PED) 97/23/EC.